## ABSTRACT OF THE DISCLOSURE

A method and apparatus suitable for forming hermetic electrical feedthroughs in a ceramic sheet having a thickness of ≤ 40 mils. More particularly, the method yields an apparatus including a hermetic electrical feedthrough which is both biocompatible and electrochemically stable and suitable for implantation in a patient's body. The method involves:

(a) providing an unfired, ceramic sheet having a thickness of ≤ 40 mils and preferably comprising ≥ 99% aluminum oxide;

(b) forming multiple blind holes in said sheet;

(c) inserting solid wires, preferably of platinum, in said holes;

(d) firing the assembly of sheet and wires to a temperature sufficient to sinter the sheet material but insufficient to melt the wires; and

(e) removing sufficient material from the sheet lower surface so that the lower ends of said wires are flush with the finished sheet lower surface.